



Arlington Conservation Commission

Date: Thursday, September 5, 2024

Time: 7:00 PM

Location: Conducted by Remote Participation.

Please register in advance for this meeting. Reference materials, instructions, and access information for this specific meeting will be available 48 hours prior to the meeting on the Commission's agenda and minutes page. This meeting will be conducted in a remote format consistent with Chapter 2 of the Acts of 2023, which further extends certain COVID-19 measures regarding remote participation in public meetings until March 31, 2025. Please note: Not all items listed may in fact be discussed and other items not listed may be brought up for discussion to the extent permitted by law. This agenda includes those matters which can be reasonably anticipated to be discussed at the meeting.

Agenda

1. Administrative
 - a. Review Meeting Minutes.
 - b. Correspondence Received.
All correspondence is available to the public. For a full list, contact the Conservation Agent at concomm@town.arlington.ma.us.
 - c. Administrative Report.
 - Conservation Administrator Staffing.
 - Public Use of Meadowbrook Park.
2. Discussion
 - a. Guest Presentation: Hotze Wijnja, PhD, Environmental Chemist with MDAR, on Glyphosate Use.
 - b. Water Bodies Working Group.
 - c. Tree Committee Update.
 - d. CPA Committee Update.
3. Hearings

DEP #091-0356: Notice of Intent: Thorndike Place (Continued from 08/15/2024).

DEP #091-0356: Notice of Intent: Thorndike Place (Continued from 08/15/2024).

The Conservation Commission will hold a public hearing under the Wetlands Protection Act to consider a Notice of Intent for the construction of Thorndike Place, a multifamily development on Dorothy Road in Arlington. Areas proposed to be altered include Buffer Zone to Bordering Vegetated

Wetland and Bordering Land Subject to Flooding associated with Alewife Brook. The Commission expects to continue this hearing to the meeting on September 15, 2024.

Notice of Intent: 49 Spy Pond Lane.

Notice of Intent: 49 Spy Pond Lane.

The Conservation Commission will hold a public hearing to consider a Notice of Intent under the Wetlands Protection Act and Arlington Bylaw for Wetlands Protection for the construction of a deck at 49 Spy Pond Lane. Areas proposed to be altered include the Buffer Zone and Adjacent Upland resource Area.

Request for Determination of Applicability: Colonial Village.

Request for Determination of Applicability: Colonial Village.

The Conservation Commission will hold a public hearing to consider a Request for Determination of Applicability under the Wetlands Protection Act and Arlington Bylaw for Wetlands Protection for invasive vegetation management at Colonial Village. Areas proposed to be altered include the Buffer Zone, Floodway, Riverfront Area, and Adjacent Upland resource Area.



Town of Arlington, Massachusetts

Correspondence Received.

Summary:

Correspondence Received.

All correspondence is available to the public. For a full list, contact the Conservation Agent at concomm@town.arlington.ma.us.

ATTACHMENTS:

Type	File Name	Description
Reference Material	Correspondence_Received_-_Thorndike_Place_-_Michael_Mobile.pdf	Correspondence Received - Thorndike Place - Michael Mobile.pdf

August 23, 2024

Town of Arlington, Massachusetts Conservation Commission
C/O Mr. Charles Tirone, Chair
730 Mass Ave. Annex
Arlington, MA 02476

VIA EMAIL

RE: Thorndike Place, Dorothy Road, Arlington, Massachusetts – Response to GZA Peer Review of Stormwater Mound Evaluation and Design Groundwater Elevation

Dear Chairman Tirone and Commission Members,

We have reviewed GZA GeoEnvironmental, Inc.'s (GZA's) August 1, 2024 peer review summary letter and are providing the following comments:

Groundwater/Stormwater Mounding Analysis:

GZA's review, like our own recent reviews, finds that BSC's groundwater mounding analysis improperly considers an infiltration volume much smaller than the actual volume that is proposed. They refer to this quantity as the "*required recharge volume*", which is the minimum amount of stormwater that they are required to infiltrate. However, due to the expansive size of the project and related impervious surfaces, the proposed stormwater system would attempt to infiltrate much larger volumes during storm events. As a result, BSC's groundwater mounding analysis is not useful. It does not demonstrate that the systems will operate as intended during storm events, nor does it provide any support for claimed compliance with Stormwater Standard 2 and the 72-hour drainage time requirement noted in the Massachusetts Stormwater Handbook (MSH).

In identifying this problem and assessing its implications, GZA correctly concludes the proposed infiltration systems must be redesigned. We fully support this overarching conclusion; however, we respectfully request clarification from GZA relative to the following statement: "*In GZA's opinion both the large main stormwater infiltration system and the smaller driveway infiltrations (sic) systems would need to be redesigned to account for the impacts of groundwater mounding during large storm events and to meet the MassDEP Stormwater Manual's maximum allowable drainage standard of 72-hours*". On Page 4 of their letter, GZA notes the following, which we interpret as a reference to Stormwater Standard 2, which addresses peak rate control: "...redesign should also address peak flow rates that discharge to the stormwater outfall control system". Thus, we feel it is important for GZA's conclusion(s) to be extended to specifically state that any new/updated design must comply with the Stormwater Standards—Standard 2, in particular—in addition to the 72-hour drainage time requirement defined within the MSH.

Seasonal High Groundwater Condition:

Relative to GZA's comments on the seasonal high groundwater condition proposed by BSC, we respectfully seek clarification on their approach and conclusion. GZA presents the MSH definition of seasonal high groundwater as "*the highest groundwater elevation*", yet their conclusion refers to BSC's proposed elevation of 4.0-feet as being "*above normal*" and thus finds it to be, in their opinion, "*suitable to be used for stormwater design for this project*". Is the 4.0-foot groundwater elevation viewed by GZA

as simply being “*above normal*”, or is it the maximum/highest condition, which would be consistent with the MSH definition?

If the answer is “*above normal*”, the pertinent follow up question would be: why is GZA’s basis for “*suitable*” seemingly different from MassDEP’s, as represented by the MSH? Conversely, if GZA does view the 4.0-foot elevation as “*the highest groundwater elevation*” at the site, how do they explain the results of correctly applying the so-called “Frimpter” adjustment method that specifically attempts to estimate a maximum site-specific groundwater elevation based on a historical record of measurements associated with a U.S. Geological Survey (USGS) index well? GZA should note that, to date, we have only used Frimpter method results to highlight BSC’s methodological errors (i.e., in implementing their own Frimpter and generally illustrate the point that groundwater levels do exceed the proposed ESHGW elevation of 4.0-feet. Therefore, GZA’s comments pertaining to the representativeness of certain USGS index wells are not germane, as any nearby index well would produce the same outcome (i.e., an adjusted seasonal high groundwater elevation exceeding 4.0-feet).

Furthermore, as reported in multiple prior comment letters, water level data have been collected at a nearby monitoring well that we installed on the adjacent town-owned parcel on Dorothy Road (approximately 100-feet from proposed primary stormwater infiltration system INF-1). The data collected from this well reflect a peak groundwater elevation during the March 19 – April 20 period of 4.4-feet occurring during March 29, 2024. BSC’s groundwater level measurements were taken on April 1, 17, and 24 when water levels had receded relative to the peak condition.

To reach a resolution on this issue at the site, we believe one key question must be reasonably answered: how far above 4.0-feet does the highest groundwater elevation extend? Our position on this matter is simple—more information is needed to reliably identify “*the highest groundwater elevation*” in a manner consistent with the guidance presented in the MSH.

Sincerely,



Scott W. Horsley
Water Resources Consultant



Michael Mobile, Ph.D., CGWP
President – McDonald Morrissey Associates, LLC



Town of Arlington, Massachusetts

Administrative Report.

Summary:

Administrative Report.

- Conservation Administrator Staffing.
- Public Use of Meadowbrook Park.

ATTACHMENTS:

Type	File Name	Description
□ Reference Material	Temporary_Conservation_Administrator_Staffing_Memo.pdf	Temporary Conservation Administrator Staffing Memo.pdf



TOWN OF ARLINGTON
MASSACHUSETTS
CONSERVATION COMMISSION

To: Arlington Conservation Commission

From: David Morgan, Environmental Planner + Conservation Agent

Date: 08/29/24

Re: Temporary Part-Time Conservation Administrator Staffing

The purpose of this memo is to propose filling the Conservation Administrator role as a part-time, Conservation Commission funded temporary position through the end of FY25.

The demands of the Conservation Agent role outstrip that of a half-time position and the Conservation Commission has recently supplemented its capacity by hiring a Conservation Administrator on a contract basis. The Administrator's contract is limited to 10 hours/week.

The expenses for the Administrator role over FY23 and FY24 totaled \$15,544.39 for 327 hours worked. The new proposal would cover more hours (391±) at an expected rate of \$30/hour. The total expected cost in FY25 is \$11,739.

At present, there are sufficient funds to cover this expense in the Commission's expense accounts.

- Local Bylaw Fee - \$12,163.93
- State Fee - \$3,908.55

Where the Commission has offset of the Department of Planning and Community Development (DPCD) budget line item for the Environmental Planner/Conservation Agent role in the past, DPCD is aware that fee revenues are insufficient for the payment of the existing salary and operating expenses. DPCD has committed to making other arrangements for FY26, allowing the Commission to fund the part-time position.

A job description has been written by the Commission chair, vice chair, and agent and is included below.

SCOPE OF SERVICES

The temporary Conservation Administrator agrees to perform all professional services set forth below:

Hours and Payment:

A 10 hours per week work schedule including site visits and office hours for the public as needed and discussed in advance with the Conservation Agent.

Hours in excess of 10 hours per week must be approved in advance by the Conservation Agent, with input from the Director of Planning and the Conservation Commission Chair.

The hourly rate is set at \$30.00 per hour as the proposal provided. Contractor shall submit monthly invoices for time worked addressed to:

Town of Arlington
Conservation Commission
730 Massachusetts Avenue
Arlington, MA 02476

Description of Work:**Definition**

The Temporary Conservation Administrator directly assists the Conservation Agent and the Arlington Conservation Commission primarily in its administration and enforcement of the Massachusetts Wetlands Protection Act and the Arlington Bylaw for Wetlands Protection.

Supervision

The Conservation Administrator reports directly to the Conservation Agent.

Work Environment

Work is performed in typical office conditions in Town Hall or by remote participation, as agreed to by the Conservation Agent.

The employee operates standard office equipment supplied by the Town.

Work is also conducted throughout Town as required to investigate residential, commercial, or public properties as requested by the Conservation Agent.

The employee has frequent contact with the general public, permit applicants and their technical consultants, town and state officials.

Errors in judgement could result in violations of the Wetland Protection Act or Town Bylaw for Wetlands Protection, loss of the protection of natural resources and damages to land within in the floodplain.

Duties

The essential functions or duties listed below are intended only as illustrations of the various types of work that may be performed. The omission of specific statements of duties does not exclude them from the position if the work is similar, related, or a logical assignment to the position.

Assists in preparing for bi-weekly commission meetings (usually first and third Thursdays of each month), including drafting meeting minutes. Flexibility allowed as agreed to by the Conservation Agent to prepare meeting minutes from Zoom meeting recordings.

Assists permit applicants in filing procedures with the Town and the State following statutory and regulatory time constraints.

Reviews permit applications for administrative completeness and technical compliance with state and local Wetlands Protection laws and regulations.

Drafts Determinations of Applicability, Orders of Resource Area Delineation, Extensions to Orders of Conditions, Certificates of Compliance. Assists in drafting of Orders of Conditions and Amendments to Orders of Conditions.

Conducts site visits on request for purposes of answering site-specific questions, permitting, pre-construction, compliance, and enforcement. Writes site visit reports.

Under supervision of the Agent, monitors projects for compliance with conservation related laws, regulations, and determinations, and assists with enforcement actions to prevent or correct violations.

Issues written and verbal correspondence and messages related to the Commission's permitting activities.

Provides office hours for the public as needed and discussed in advance with the Conservation Agent and/or Chair.

Minimum Qualifications

BA in Engineering or Science, or a minimum of two years of applicable field or regulatory experience. Valid driver's license required.

Knowledge, Ability and Skill

Strong written and oral communication skills. Excellent organizational skills.

Ability to work independently. Ability to keep accurate and detailed notes and records. Strong ability to prioritize work.

Skill with computers including knowledge of Microsoft Word, Microsoft Excel.

Physical requirements

Only minimal physical effort is generally required to perform duties under typical office conditions. The employee is frequently required to sit, speak, hear, and use hands to operate office equipment.

Site visits generally require more strenuous activities including the ability to walk on uneven ground, slopes and brushy and/or wet areas to inspect properties for their specific compliance under Wetlands Protection laws.

Vision requirements include the ability to read lengthy detailed documents and plans, use a computer, and operate an automobile.

This job description does not constitute an employment agreement between the employer and employee, and is subject to change by the employer, as the needs of the employer and requirements of the job change.



Town of Arlington, Massachusetts

Notice of Intent: 49 Spy Pond Lane.

Summary:

Notice of Intent: 49 Spy Pond Lane.

The Conservation Commission will hold a public hearing to consider a Notice of Intent under the Wetlands Protection Act and Arlington Bylaw for Wetlands Protection for the construction of a deck at 49 Spy Pond Lane. Areas proposed to be altered include the Buffer Zone and Adjacent Upland resource Area.

ATTACHMENTS:

Type	File Name	Description
Reference Material	49_Spy_Pond_Lane_Note_of_Intent_Package.pdf	49 Spy Pond Lane Notice of Intent Package.pdf



Massachusetts Department of Environmental Protection

Bureau of Resource Protection - Wetlands

WPA Form 3 – Notice of Intent

Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

Provided by MassDEP:

MassDEP File Number

Document Transaction Number

Arlington

City/Town

Important:
When filling out
forms on the
computer, use
only the tab key
to move your
cursor - do not
use the return
key.



Note:
Before
completing this
form consult
your local
Conservation
Commission
regarding any
municipal bylaw
or ordinance.

A. General Information

1. Project Location (**Note:** electronic filers will click on button to locate project site):

49 Spy Pond Lane

a. Street Address

Arlington

02474

b. City/Town

Latitude and Longitude:

12

f. Assessors Map/Plat Number

d. Latitude

e. Longitude

4-2.A

g. Parcel /Lot Number

2. Applicant:

Kevin

a. First Name

Blankespoor

b. Last Name

c. Organization

49 Spy Pond Lane

d. Street Address

MA

02474

e. City/Town

f. State

g. Zip Code

617-378-2611

N/A

h. Phone Number

i. Fax Number

kevin.blankespoor@gmail.com

j. Email Address

3. Property owner (required if different from applicant): Check if more than one owner

a. First Name

b. Last Name

c. Organization

d. Street Address

e. City/Town

f. State

g. Zip Code

h. Phone Number

i. Fax Number

j. Email address

4. Representative (if any):

Larry

a. First Name

Cohen

b. Last Name

Archadeck of Suburban Boston

c. Company

16 Adams St

d. Street Address

e. City/Town

MA

01803

617-593-8975

f. State

g. Zip Code

h. Phone Number

i. Fax Number

lcohen@archadeck.net

j. Email address

5. Total WPA Fee Paid (from NOI Wetland Fee Transmittal Form):

\$470

a. Total Fee Paid

\$42.50

b. State Fee Paid

\$427.50

c. City/Town Fee Paid



Massachusetts Department of Environmental Protection

Bureau of Resource Protection - Wetlands

WPA Form 3 – Notice of Intent

Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

Provided by MassDEP:

MassDEP File Number

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Arlington

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A. General Information (continued)

6. General Project Description:

Back deck at 49 Spy Pond Ln

- 7a. Project Type Checklist: (Limited Project Types see Section A. 7b.)

- | | |
|---|---|
| 1. <input checked="" type="checkbox"/> Single Family Home | 2. <input type="checkbox"/> Residential Subdivision |
| 3. <input type="checkbox"/> Commercial/Industrial | 4. <input type="checkbox"/> Dock/Pier |
| 5. <input type="checkbox"/> Utilities | 6. <input type="checkbox"/> Coastal engineering Structure |
| 7. <input type="checkbox"/> Agriculture (e.g., cranberries, forestry) | 8. <input type="checkbox"/> Transportation |
| 9. <input type="checkbox"/> Other | |

- 7b. Is any portion of the proposed activity eligible to be treated as a limited project (including Ecological Restoration Limited Project) subject to 310 CMR 10.24 (coastal) or 310 CMR 10.53 (inland)?

1. Yes No If yes, describe which limited project applies to this project. (See 310 CMR 10.24 and 10.53 for a complete list and description of limited project types)

2. Limited Project Type

If the proposed activity is eligible to be treated as an Ecological Restoration Limited Project (310 CMR 10.24(8), 310 CMR 10.53(4)), complete and attach Appendix A: Ecological Restoration Limited Project Checklist and Signed Certification.

8. Property recorded at the Registry of Deeds for:

Middlesex

a. County

79194

c. Book

b. Certificate # (if registered land)

490

d. Page Number

B. Buffer Zone & Resource Area Impacts (temporary & permanent)

1. Buffer Zone Only – Check if the project is located only in the Buffer Zone of a Bordering Vegetated Wetland, Inland Bank, or Coastal Resource Area.
2. Inland Resource Areas (see 310 CMR 10.54-10.58; if not applicable, go to Section B.3, Coastal Resource Areas).

Check all that apply below. Attach narrative and any supporting documentation describing how the project will meet all performance standards for each of the resource areas altered, including standards requiring consideration of alternative project design or location.



Massachusetts Department of Environmental Protection

Bureau of Resource Protection - Wetlands

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Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

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B. Buffer Zone & Resource Area Impacts (temporary & permanent) (cont'd)

For all projects affecting other Resource Areas, please attach a narrative explaining how the resource area was delineated.

<u>Resource Area</u>	<u>Size of Proposed Alteration</u>	<u>Proposed Replacement (if any)</u>
a. <input type="checkbox"/> Bank	1. linear feet	2. linear feet
b. <input type="checkbox"/> Bordering Vegetated Wetland	1. square feet	2. square feet
c. <input type="checkbox"/> Land Under Waterbodies and Waterways	1. square feet 3. cubic yards dredged	2. square feet
<u>Resource Area</u>	<u>Size of Proposed Alteration</u>	<u>Proposed Replacement (if any)</u>
d. <input type="checkbox"/> Bordering Land Subject to Flooding	1. square feet 3. cubic feet of flood storage lost	2. square feet 4. cubic feet replaced
e. <input type="checkbox"/> Isolated Land Subject to Flooding	1. square feet 2. cubic feet of flood storage lost	3. cubic feet replaced
f. <input type="checkbox"/> Riverfront Area	1. Name of Waterway (if available) - specify coastal or inland	
2. Width of Riverfront Area (check one):		
<input type="checkbox"/> 25 ft. - Designated Densely Developed Areas only		
<input type="checkbox"/> 100 ft. - New agricultural projects only		
<input type="checkbox"/> 200 ft. - All other projects		
3. Total area of Riverfront Area on the site of the proposed project:	square feet	
4. Proposed alteration of the Riverfront Area:		
a. total square feet	b. square feet within 100 ft.	c. square feet between 100 ft. and 200 ft.
5. Has an alternatives analysis been done and is it attached to this NOI?	<input type="checkbox"/> Yes <input type="checkbox"/> No	
6. Was the lot where the activity is proposed created prior to August 1, 1996?	<input type="checkbox"/> Yes <input type="checkbox"/> No	
3. <input type="checkbox"/> Coastal Resource Areas: (See 310 CMR 10.25-10.35)		

Note: for coastal riverfront areas, please complete **Section B.2.f.** above.



Massachusetts Department of Environmental Protection

Bureau of Resource Protection - Wetlands

WPA Form 3 – Notice of Intent

Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

Provided by MassDEP:

MassDEP File Number

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City/Town

B. Buffer Zone & Resource Area Impacts (temporary & permanent) (cont'd)

Check all that apply below. Attach narrative and supporting documentation describing how the project will meet all performance standards for each of the resource areas altered, including standards requiring consideration of alternative project design or location.

Online Users:
Include your document transaction number (provided on your receipt page) with all supplementary information you submit to the Department.

<u>Resource Area</u>	<u>Size of Proposed Alteration</u>	<u>Proposed Replacement (if any)</u>
a. <input type="checkbox"/> Designated Port Areas	Indicate size under Land Under the Ocean, below	
b. <input type="checkbox"/> Land Under the Ocean	1. square feet	
	2. cubic yards dredged	
c. <input type="checkbox"/> Barrier Beach	Indicate size under Coastal Beaches and/or Coastal Dunes below	
d. <input type="checkbox"/> Coastal Beaches	1. square feet	2. cubic yards beach nourishment
e. <input type="checkbox"/> Coastal Dunes	1. square feet	2. cubic yards dune nourishment
<u>Size of Proposed Alteration</u>		
f. <input type="checkbox"/> Coastal Banks	1. linear feet	
g. <input type="checkbox"/> Rocky Intertidal Shores	1. square feet	
h. <input type="checkbox"/> Salt Marshes	1. square feet	2. sq ft restoration, rehab., creation
i. <input type="checkbox"/> Land Under Salt Ponds	1. square feet	
j. <input type="checkbox"/> Land Containing Shellfish	2. cubic yards dredged	
k. <input type="checkbox"/> Fish Runs	1. square feet	
Indicate size under Coastal Banks, inland Bank, Land Under the Ocean, and/or inland Land Under Waterbodies and Waterways, above		
	1. cubic yards dredged	
l. <input type="checkbox"/> Land Subject to Coastal Storm Flowage	1. square feet	
4. <input type="checkbox"/> Restoration/Enhancement	If the project is for the purpose of restoring or enhancing a wetland resource area in addition to the square footage that has been entered in Section B.2.b or B.3.h above, please enter the additional amount here.	
	a. square feet of BVW	b. square feet of Salt Marsh
5. <input type="checkbox"/> Project Involves Stream Crossings		
	a. number of new stream crossings	b. number of replacement stream crossings



Massachusetts Department of Environmental Protection

Bureau of Resource Protection - Wetlands

WPA Form 3 – Notice of Intent

Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

Provided by MassDEP:

MassDEP File Number

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Arlington

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C. Other Applicable Standards and Requirements

- This is a proposal for an Ecological Restoration Limited Project. Skip Section C and complete Appendix A: Ecological Restoration Limited Project Checklists – Required Actions (310 CMR 10.11).

Streamlined Massachusetts Endangered Species Act/Wetlands Protection Act Review

1. Is any portion of the proposed project located in **Estimated Habitat of Rare Wildlife** as indicated on the most recent Estimated Habitat Map of State-Listed Rare Wetland Wildlife published by the Natural Heritage and Endangered Species Program (NHESP)? To view habitat maps, see the *Massachusetts Natural Heritage Atlas* or go to http://maps.massgis.state.ma.us/PRI_EST_HAB/viewer.htm.

- a. Yes No

If yes, include proof of mailing or hand delivery of NOI to:

Natural Heritage and Endangered Species Program
Division of Fisheries and Wildlife
1 Rabbit Hill Road
Westborough, MA 01581

- b. Date of map _____

If yes, the project is also subject to Massachusetts Endangered Species Act (MESA) review (321 CMR 10.18). To qualify for a streamlined, 30-day, MESA/Wetlands Protection Act review, please complete Section C.1.c, and include requested materials with this Notice of Intent (NOI); OR complete Section C.2.f, if applicable. *If MESA supplemental information is not included with the NOI, by completing Section 1 of this form, the NHESP will require a separate MESA filing which may take up to 90 days to review (unless noted exceptions in Section 2 apply, see below).*

- c. Submit Supplemental Information for Endangered Species Review*

1. Percentage/acreage of property to be altered:

(a) within wetland Resource Area _____ percentage/acreage

(b) outside Resource Area _____ percentage/acreage

2. Assessor's Map or right-of-way plan of site

2. Project plans for entire project site, including wetland resource areas and areas outside of wetlands jurisdiction, showing existing and proposed conditions, existing and proposed tree/vegetation clearing line, and clearly demarcated limits of work **

(a) Project description (including description of impacts outside of wetland resource area & buffer zone)

(b) Photographs representative of the site

* Some projects **not** in Estimated Habitat may be located in Priority Habitat, and require NHESP review (see <https://www.mass.gov/mass-endangered-species-act-mesa-regulatory-review>).

Priority Habitat includes habitat for state-listed plants and strictly upland species not protected by the Wetlands Protection Act.

** MESA projects may not be segmented (321 CMR 10.16). The applicant must disclose full development plans even if such plans are not required as part of the Notice of Intent process.



Massachusetts Department of Environmental Protection

Bureau of Resource Protection - Wetlands

WPA Form 3 – Notice of Intent

Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

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C. Other Applicable Standards and Requirements (cont'd)

- (c) MESA filing fee (fee information available at <https://www.mass.gov/how-to/how-to-file-for-a-mesa-project-review>).

Make check payable to "Commonwealth of Massachusetts - NHESP" and **mail to NHESP** at above address

Projects altering 10 or more acres of land, also submit:

- (d) Vegetation cover type map of site

- (e) Project plans showing Priority & Estimated Habitat boundaries

(f) OR Check One of the Following

1. Project is exempt from MESA review.

Attach applicant letter indicating which MESA exemption applies. (See 321 CMR 10.14, <https://www.mass.gov/service-details/exemptions-from-review-for-projectsactivities-in-priority-habitat>; the NOI must still be sent to NHESP if the project is within estimated habitat pursuant to 310 CMR 10.37 and 10.59.)

2. Separate MESA review ongoing.

a. NHESP Tracking #

b. Date submitted to NHESP

3. Separate MESA review completed.

Include copy of NHESP "no Take" determination or valid Conservation & Management Permit with approved plan.

3. For coastal projects only, is any portion of the proposed project located below the mean high water line or in a fish run?

- a. Not applicable – project is in inland resource area only b. Yes No

If yes, include proof of mailing, hand delivery, or electronic delivery of NOI to either:

South Shore - Bourne to Rhode Island border, and
the Cape & Islands:

North Shore - Plymouth to New Hampshire border:

Division of Marine Fisheries -
Southeast Marine Fisheries Station
Attn: Environmental Reviewer
836 South Rodney French Blvd.
New Bedford, MA 02744
Email: dmf.envreview-south@mass.gov

Division of Marine Fisheries -
North Shore Office
Attn: Environmental Reviewer
30 Emerson Avenue
Gloucester, MA 01930
Email: dmf.envreview-north@mass.gov

Also if yes, the project may require a Chapter 91 license. For coastal towns in the Northeast Region, please contact MassDEP's Boston Office. For coastal towns in the Southeast Region, please contact MassDEP's Southeast Regional Office.

- c. Is this an aquaculture project?

- d. Yes No

If yes, include a copy of the Division of Marine Fisheries Certification Letter (M.G.L. c. 130, § 57).



Massachusetts Department of Environmental Protection

Bureau of Resource Protection - Wetlands

WPA Form 3 – Notice of Intent

Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

Provided by MassDEP:

MassDEP File Number

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C. Other Applicable Standards and Requirements (cont'd)

4. Is any portion of the proposed project within an Area of Critical Environmental Concern (ACEC)?
- a. Yes No If yes, provide name of ACEC (see instructions to WPA Form 3 or MassDEP Website for ACEC locations). **Note:** electronic filers click on Website.
-
- b. ACEC
5. Is any portion of the proposed project within an area designated as an Outstanding Resource Water (ORW) as designated in the Massachusetts Surface Water Quality Standards, 314 CMR 4.00?
- a. Yes No
6. Is any portion of the site subject to a Wetlands Restriction Order under the Inland Wetlands Restriction Act (M.G.L. c. 131, § 40A) or the Coastal Wetlands Restriction Act (M.G.L. c. 130, § 105)?
- a. Yes No
7. Is this project subject to provisions of the MassDEP Stormwater Management Standards?
- a. Yes. Attach a copy of the Stormwater Report as required by the Stormwater Management Standards per 310 CMR 10.05(6)(k)-(q) and check if:
1. Applying for Low Impact Development (LID) site design credits (as described in Stormwater Management Handbook Vol. 2, Chapter 3)
 2. A portion of the site constitutes redevelopment
 3. Proprietary BMPs are included in the Stormwater Management System.
- b. No. Check why the project is exempt:
1. Single-family house
 2. Emergency road repair
 3. Small Residential Subdivision (less than or equal to 4 single-family houses or less than or equal to 4 units in multi-family housing project) with no discharge to Critical Areas.

D. Additional Information

- This is a proposal for an Ecological Restoration Limited Project. Skip Section D and complete Appendix A: Ecological Restoration Notice of Intent – Minimum Required Documents (310 CMR 10.12).

Applicants must include the following with this Notice of Intent (NOI). See instructions for details.

Online Users: Attach the document transaction number (provided on your receipt page) for any of the following information you submit to the Department.

1. USGS or other map of the area (along with a narrative description, if necessary) containing sufficient information for the Conservation Commission and the Department to locate the site. (Electronic filers may omit this item.)
2. Plans identifying the location of proposed activities (including activities proposed to serve as a Bordering Vegetated Wetland [BVW] replication area or other mitigating measure) relative to the boundaries of each affected resource area.



Massachusetts Department of Environmental Protection

Bureau of Resource Protection - Wetlands

WPA Form 3 – Notice of Intent

Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

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Document Transaction Number

Arlington

City/Town

D. Additional Information (cont'd)

3. Identify the method for BVW and other resource area boundary delineations (MassDEP BVW Field Data Form(s), Determination of Applicability, Order of Resource Area Delineation, etc.), and attach documentation of the methodology.

4. List the titles and dates for all plans and other materials submitted with this NOI.

a. Plan Title

b. Prepared By

c. Signed and Stamped by

d. Final Revision Date

e. Scale

f. Additional Plan or Document Title

g. Date

5. If there is more than one property owner, please attach a list of these property owners not listed on this form.

6. Attach proof of mailing for Natural Heritage and Endangered Species Program, if needed.

7. Attach proof of mailing for Massachusetts Division of Marine Fisheries, if needed.

8. Attach NOI Wetland Fee Transmittal Form

9. Attach Stormwater Report, if needed.

E. Fees

1. Fee Exempt: No filing fee shall be assessed for projects of any city, town, county, or district of the Commonwealth, federally recognized Indian tribe housing authority, municipal housing authority, or the Massachusetts Bay Transportation Authority.

Applicants must submit the following information (in addition to pages 1 and 2 of the NOI Wetland Fee Transmittal Form) to confirm fee payment:

2399 and 2401

8/13/2024

2. Municipal Check Number

3. Check date

2400

8/13/2024

4. State Check Number

5. Check date

Kevin

Blankespoor

6. Payor name on check: First Name

7. Payor name on check: Last Name



Massachusetts Department of Environmental Protection

Bureau of Resource Protection - Wetlands

WPA Form 3 – Notice of Intent

Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

Provided by MassDEP:

MassDEP File Number

Document Transaction Number

Arlington

City/Town

F. Signatures and Submittal Requirements

I hereby certify under the penalties of perjury that the foregoing Notice of Intent and accompanying plans, documents, and supporting data are true and complete to the best of my knowledge. I understand that the Conservation Commission will place notification of this Notice in a local newspaper at the expense of the applicant in accordance with the wetlands regulations, 310 CMR 10.05(5)(a).

I further certify under penalties of perjury that all abutters were notified of this application, pursuant to the requirements of M.G.L. c. 131, § 40. Notice must be made by Certificate of Mailing or in writing by hand delivery or certified mail (return receipt requested) to all abutters within 100 feet of the property line of the project location.

8/11/2024

2. Date

1. Signature of Applicant

4. Date

3. Signature of Property Owner (if different)

6. Date

5. Signature of Representative (if any)

For Conservation Commission:

Two copies of the completed Notice of Intent (Form 3), including supporting plans and documents, two copies of the NOI Wetland Fee Transmittal Form, and the city/town fee payment, to the Conservation Commission by certified mail or hand delivery.

For MassDEP:

One copy of the completed Notice of Intent (Form 3), including supporting plans and documents, one copy of the NOI Wetland Fee Transmittal Form, and a **copy** of the state fee payment to the MassDEP Regional Office (see Instructions) by certified mail or hand delivery.

Other:

If the applicant has checked the “yes” box in any part of Section C, Item 3, above, refer to that section and the Instructions for additional submittal requirements.

The original and copies must be sent simultaneously. Failure by the applicant to send copies in a timely manner may result in dismissal of the Notice of Intent.



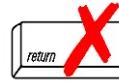
Massachusetts Department of Environmental Protection

Bureau of Resource Protection - Wetlands

NOI Wetland Fee Transmittal Form

Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

Important: When filling out forms on the computer, use only the tab key to move your cursor - do not use the return key.



A. Applicant Information

1. Location of Project:

a. Street Address

b. City/Town

c. Check number

d. Fee amount

2. Applicant Mailing Address:

a. First Name

b. Last Name

c. Organization

d. Mailing Address

e. City/Town

f. State

g. Zip Code

h. Phone Number

i. Fax Number

j. Email Address

3. Property Owner (if different):

a. First Name

b. Last Name

c. Organization

d. Mailing Address

e. City/Town

f. State

g. Zip Code

h. Phone Number

i. Fax Number

j. Email Address

B. Fees

Fee should be calculated using the following process & worksheet. **Please see Instructions before filling out worksheet.**

Step 1/Type of Activity: Describe each type of activity that will occur in wetland resource area and buffer zone.

Step 2/Number of Activities: Identify the number of each type of activity.

Step 3/Individual Activity Fee: Identify each activity fee from the six project categories listed in the instructions.

Step 4/Subtotal Activity Fee: Multiply the number of activities (identified in Step 2) times the fee per category (identified in Step 3) to reach a subtotal fee amount. Note: If any of these activities are in a Riverfront Area in addition to another Resource Area or the Buffer Zone, the fee per activity should be multiplied by 1.5 and then added to the subtotal amount.

Step 5/Total Project Fee: Determine the total project fee by adding the subtotal amounts from Step 4.

Step 6/Fee Payments: To calculate the state share of the fee, divide the total fee in half and subtract \$12.50. To calculate the city/town share of the fee, divide the total fee in half and add \$12.50.

To calculate filing fees, refer to the category fee list and examples in the instructions for filling out WPA Form 3 (Notice of Intent).



Massachusetts Department of Environmental Protection
Bureau of Resource Protection - Wetlands
NOI Wetland Fee Transmittal Form
Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

B. Fees (continued)

Step 5/Total Project Fee:

Step 6/Fee Payments:

Total Project Fee:	a. Total Fee from Step 5
State share of filing Fee:	b. 1/2 Total Fee less \$12.50
City/Town share of filing Fee:	c. 1/2 Total Fee plus \$12.50

C. Submittal Requirements

- a.) Complete pages 1 and 2 and send with a check or money order for the state share of the fee, payable to the Commonwealth of Massachusetts.

Department of Environmental Protection
Box 4062
Boston, MA 02211

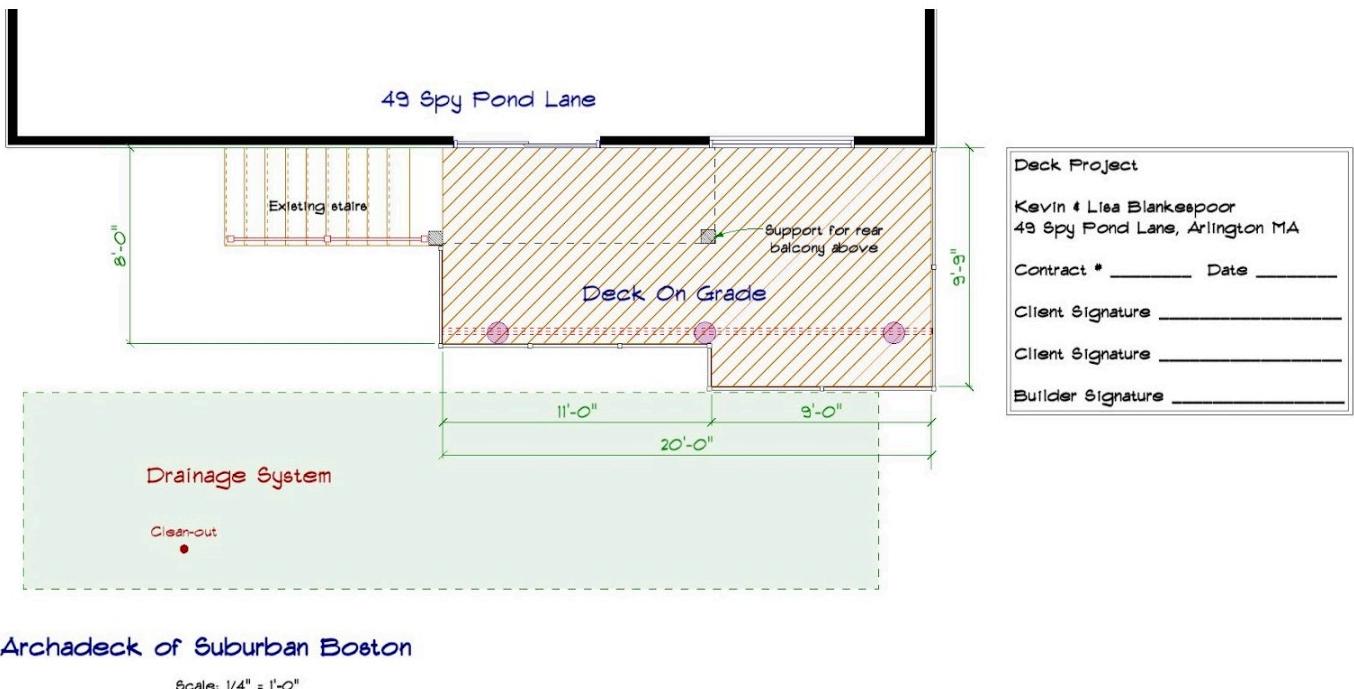
- b.) **To the Conservation Commission:** Send the Notice of Intent or Abbreviated Notice of Intent; a **copy** of this form; and the city/town fee payment.

To MassDEP Regional Office (see Instructions): Send a copy of the Notice of Intent or Abbreviated Notice of Intent; a **copy** of this form; and a **copy** of the state fee payment. (E-filers of Notices of Intent may submit these electronically.)

Appendix A: Plan of Proposed Work

Option 1 (Primary):

Build a new wood framed deck with composite decking one level above the ground, adjacent to the 2nd level of 49 Spy Pond Lane. Deck will be supported with steel helical piers, with no additional construction performed at the ground level. Composite decking will have consistent 3/16" spacing to allow for rain to easily flow through to the ground.

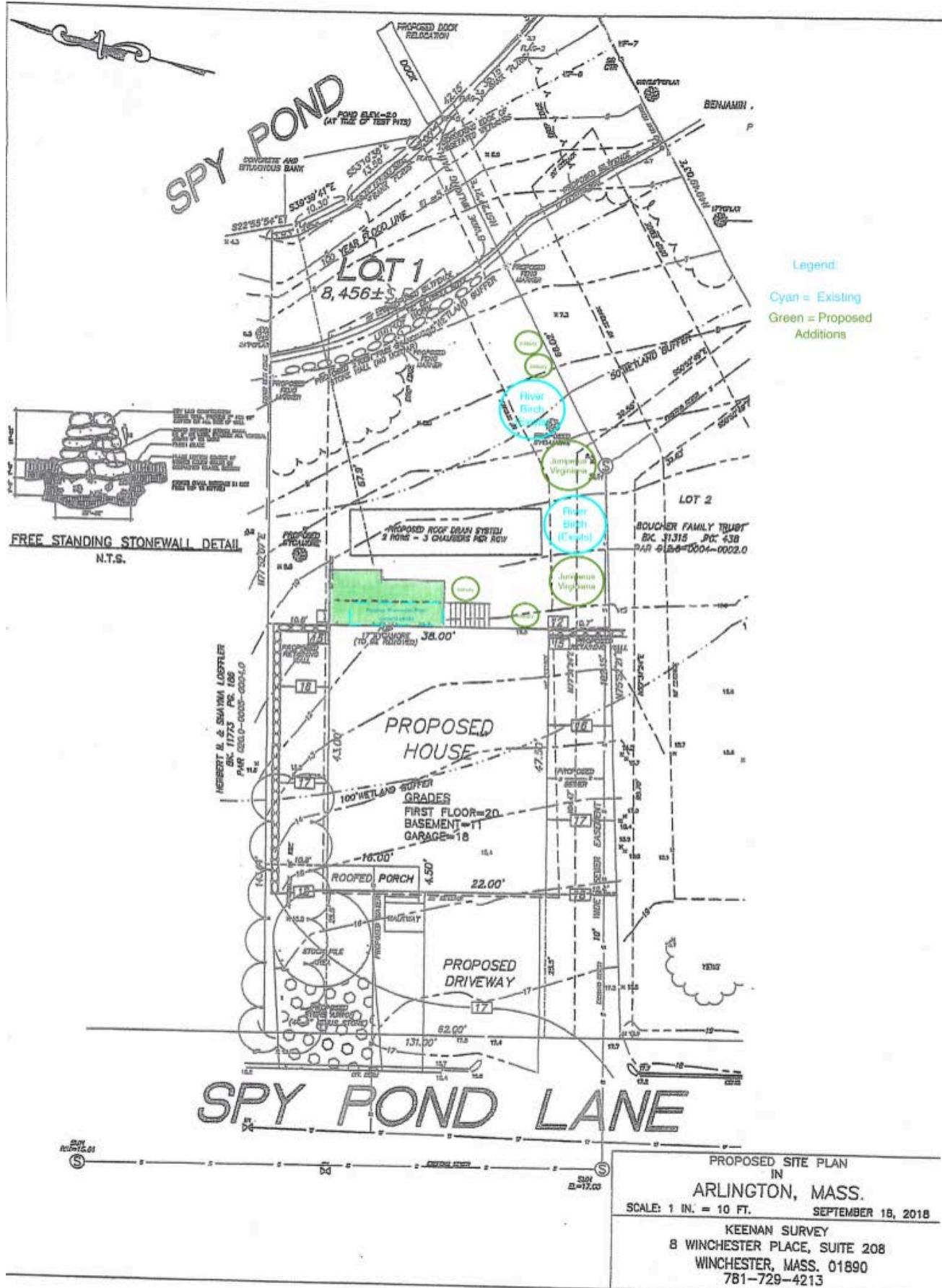


Mitigation Plantings

As mitigation the following native, non-cultivar plantings are proposed:

- 2 Juniperus Virginiana (Eastern Redcedar) Trees
- 4 Ilex Glabra (Inkberry) Bushes
- A small region of Carex Pensylvanica (Pennsylvania Sedge) Decorative Grasses

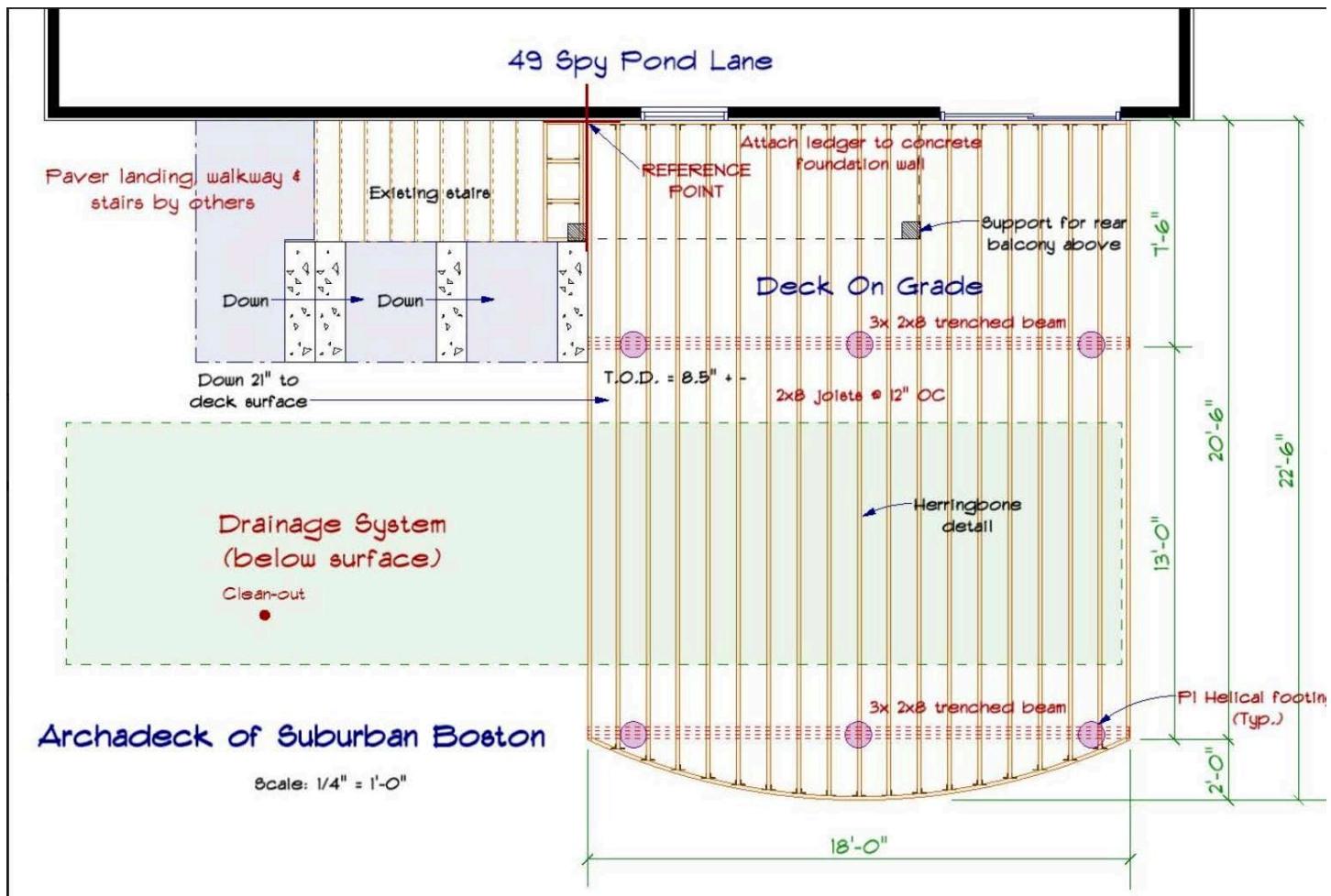
Full Site Drawing (Full Resolution available as separate PDF):



Option 2 (Alternative):

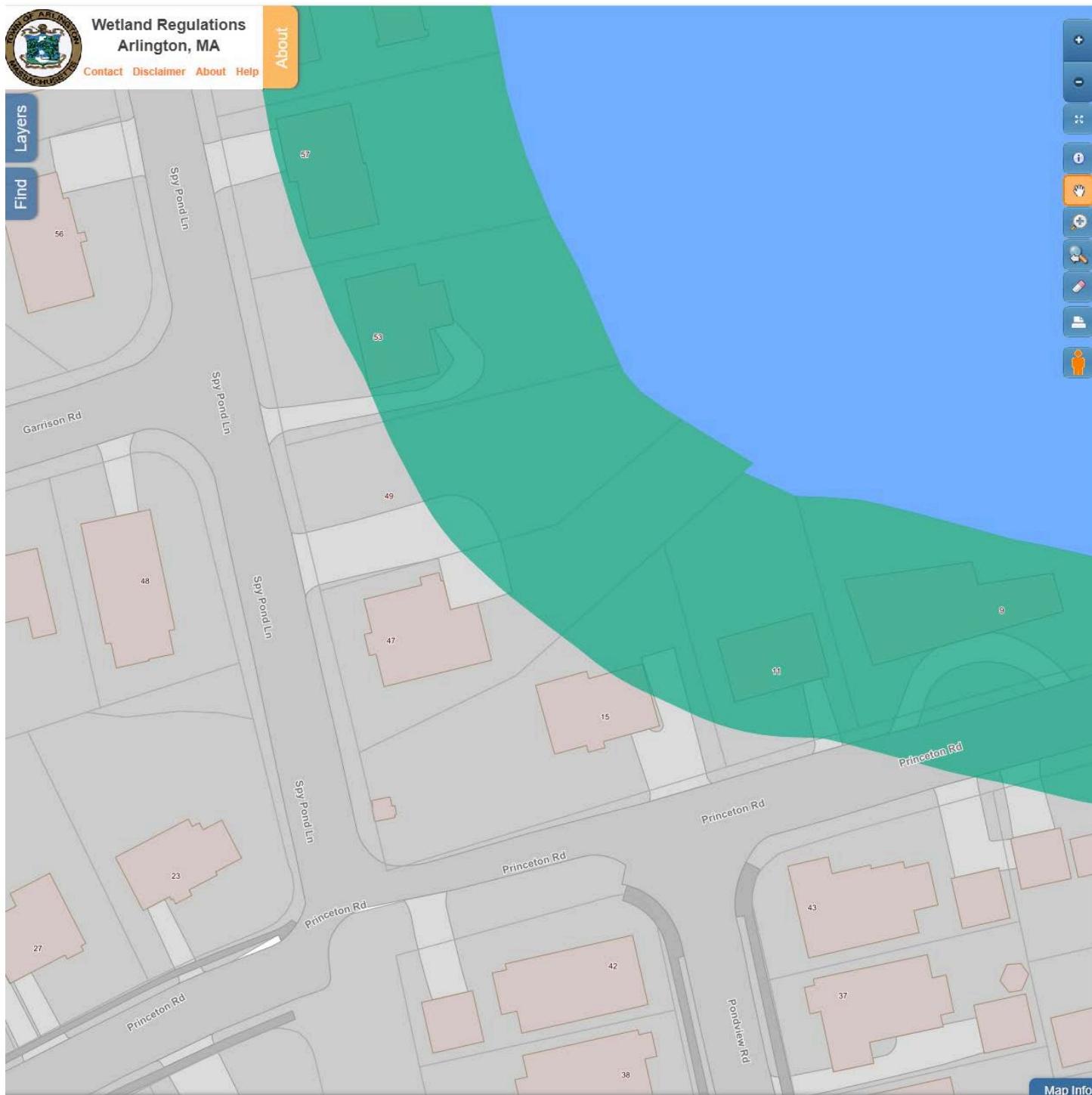
This option was first proposed to the Conservation Commission as an RDA on June 20, 2024

Build a new wood framed deck with composite decking on grade, adjacent to the rear lower level of 49 Spy Pond Lane. Deck will be supported with steel helical piers. Composite decking will have consistent 3/16" spacing to allow for rain to easily flow through to the ground. Project will also include a small paver walkway leading from the existing rear stairs to the deck. Pavers for the walkway will be removed from their existing location and repurposed. Installation of the pavers will be "porous."

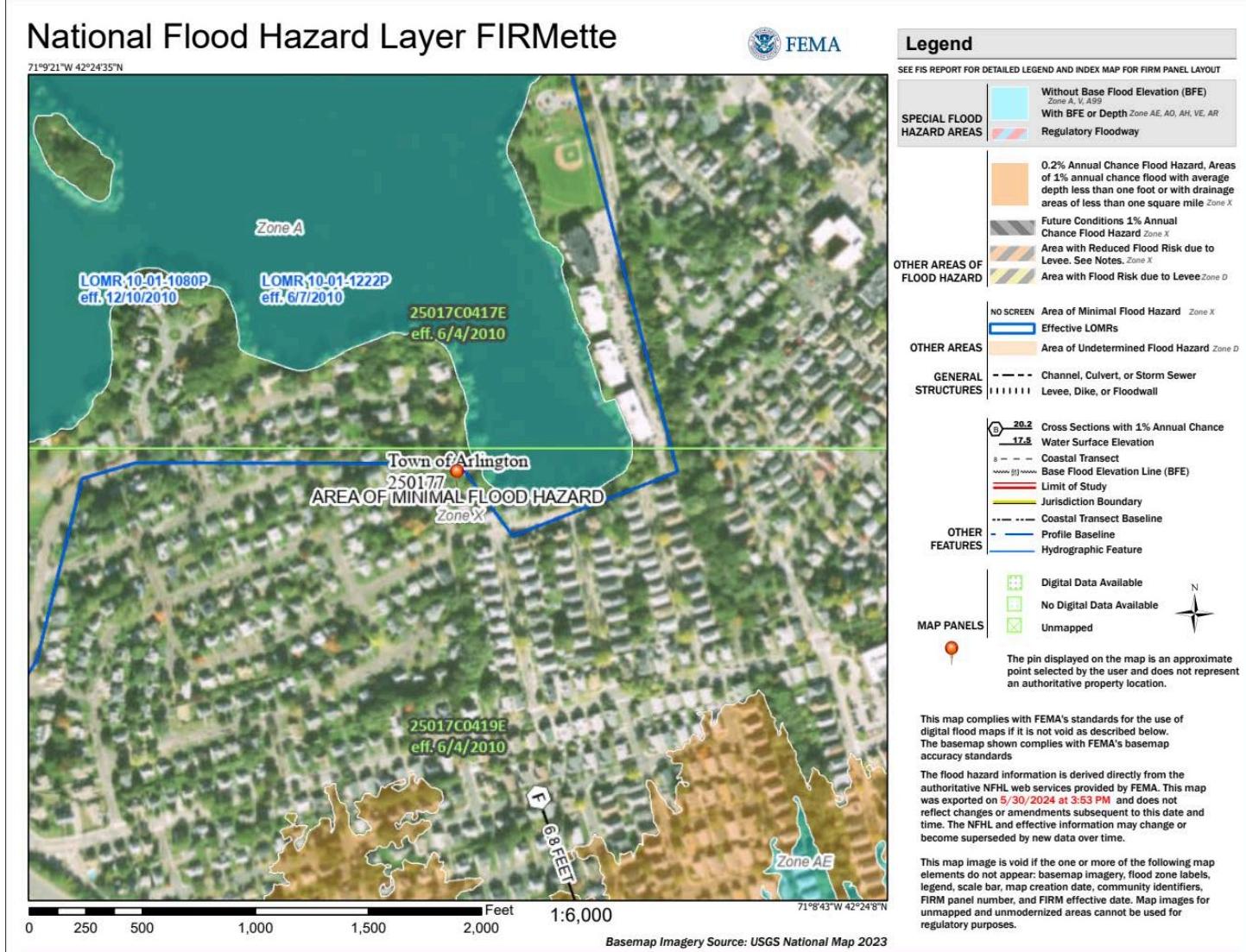


Appendix B - Maps

Topographic Map



Floodplain Maps





Appendix C - Certified List of Abutters

(All have been notified by certified mail - see receipts)

CERTIFIED ABUTTERS LIST

Date: May 20, 2024

Subject Property Location: 49 SPY POND LN Arlington, MA

Subject Parcel ID: 12-4-2.A

Search Distance: 100 Feet

Parcel ID	Property Location	Owner 1	Owner 2	Mailing Address	City/Town	State	Zip
12-4-1.A	15 PRINCETON RD	MUSIAL PETER M &	MUSIAL-SIWEK MONIKA	15 PRINCETON RD	ARLINGTON	MA	02474
12-4-2	47 SPY POND LN	CONNOLLY MICHAEL ROBERT		47 SPY POND LN	ARLINGTON	MA	02474
12-4-3	11 PRINCETON	FERBER BENJAMIN E &	DONOFRIO AIMEE K	11 PRINCETON	ARLINGTON	MA	02474

	RD			RD			4
12-4 -4	9 PRINCETON RD	CAMERON MELANIE		9 PRINCETON RD	ARLINGT ON	M A	02 47 4
12-5 -10	23 PRINCETON RD	ETHELL BRIAN THOMAS		23 PRINCETON RD	ARLINGT ON	M A	02 47 4
12-5 -11	0-LOT SPY POND LN	TOWN OF ARLINGTON TAX POSS		730 MASS AVE	ARLINGT ON	M A	02 47 6
20-1 -3	48 SPY POND LN	KAPLAN WILLIAM H	CHIU CATHERINE	57 SPY POND LN	ARLINGT ON	M A	02 47 4
20-1 -4	6 GARRISON RD	STICKTER RUSSO JUDITH		6 GARRISON RD	ARLINGT ON	M A	02 47 4
20-1 -8	5 GARRISON RD	KLEBANOV DANIEL	KIM HEIJUNG	5 GARRISON RD	ARLINGT ON	M A	02 47 4
20-1 -9	56 SPY POND LN	LEE YEEMAN S/TRUSTEE	YEEMAN S LEE TRUST	4015 CAMERO AVE	LOS ANGELES	C A	90 02 7
12-4- 2.A	49 SPY POND LN	BLANKESPOOR KEVIN & LISA		49 SPY POND LN	ARLINGT ON	M A	02 47 4
20-5 -3	57 SPY POND LN	KAPLAN WILLIAM H		57 SPY POND LN	ARLINGT ON	M A	02 47 4
20-5 -4	53 SPY POND LN	LOEFFLER EVAN/TRUSTEE	SHAYNA W LOEFFLER IRREVOCABLE	53 SPY POND LN	ARLINGT ON	M A	02 47 4

The Board of Assessors certifies the names and addresses of requested parties in interest, all abutters to subject parcel within 100 feet.

Appendix D - Completed Abutter Notification Form Letter

ABUTTER NOTIFICATION

Notification to Abutters Under the Massachusetts Wetlands Protection Act and Arlington Wetlands Protection Bylaw

In accordance with the second paragraph of Massachusetts General Laws Chapter 131, Section 40, and the Arlington Wetlands Protection Bylaw, you are hereby notified of the following:

The Conservation Commission will hold a virtual public meeting using Zoom, on **September 5th** at 7:00 PM in accordance with the provisions of the Mass. Wetlands Protection Act (M.G.L. Ch. 131, s. 40, as amended), the Town of Arlington Bylaws Article 8, Bylaw for Wetland Protection, and in accordance with the Governor's Order Suspending Certain Provisions of the Open Meeting Law, G. L. c. 30A, § 20 relating to the COVID-19 emergency, for a Notice of Intent from **Kevin Blankepoor**, for **Back Deck Addition** at **49 Spy Pond Lane** within 100 feet of a wetland, on Assessor's Property Map/s #**12**, Lot/s #**4-2.A**. Please refer to the Commission's online meeting agenda for specific Zoom meeting access information.

A copy of the application and accompanying plans are available by request by contacting the Arlington Conservation at 781-316-3012 or concomm@town.arlington.ma.us. For more information, call the applicant (**617-378-2611**), the Arlington Conservation Commission (781-316-3012), or the DEP Northeast Regional Office (978-694-3200).

NOTE: Notice of the Public Hearing will be published at least five (5) business days in advance in *The Arlington Advocate* and will also be posted at least 48 hours in advance in the Arlington Town Hall.

Affidavit of Service

I, **Kevin Blankespoor**, being duly sworn, do hereby state as follows: on **August 14, 2024**, I mailed a "Notification to Abutters" in compliance with the second paragraph of Massachusetts General Laws, Chapter 131, s.40, the DEP Guide to Abutter Notification dated April 8, 1994, and the Arlington Wetlands Protection Bylaw, Title V, Article 8 of the Town of Arlington Bylaws in connection with the following matter:

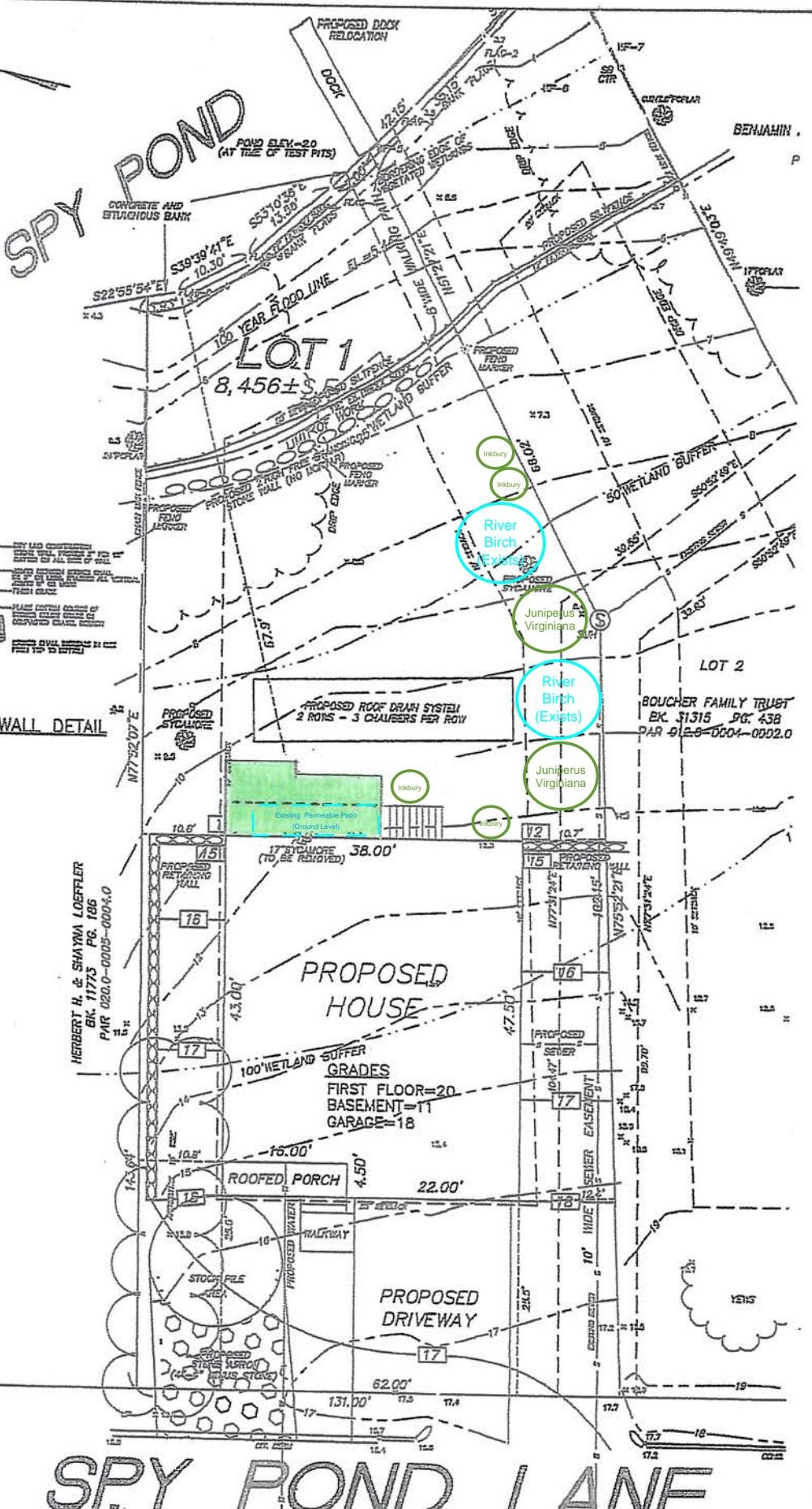
Back Deck at 49 Spy Pond Ln

49 Spy Pond Ln, Arlington, MA 02474

The form of the notification, and a list of the abutters to whom it was provided and their addresses, are attached to this Affidavit of Service.

Signed under the pains and penalties of perjury, this **24th of August, 2024**.

Name



Legend:

Cyan = Existing
Green = Proposed
Additions

HERBERT H. & SHAYNA LOEFFLER
BK. 11735 PG. 146
PAR 020.0-0005-0004.0

SPY POND LANE

PROPOSED SITE PLAN

IN
ARLINGTON, MASS.

SCALE: 1 IN. = 10 FT. SEPTEMBER 15, 1915.

MAN SURVEY-

AN SURVEY
32 of 5

KEENAN SURVEY
32 of 51
8 WINCHESTER PLACE, SUITE 208
WINCHESTER, MASS. 01890
781-729-4213



Town of Arlington, Massachusetts

Request for Determination of Applicability: Colonial Village.

Summary:

Request for Determination of Applicability: Colonial Village.

The Conservation Commission will hold a public hearing to consider a Request for Determination of Applicability under the Wetlands Protection Act and Arlington Bylaw for Wetlands Protection for invasive vegetation management at Colonial Village. Areas proposed to be altered include the Buffer Zone, Floodway, Riverfront Area, and Adjacent Upland resource Area.

ATTACHMENTS:

Type	File Name	Description
Reference Material	Colonial_Village_Request_for_Determination_of_Applicability_Package.pdf	Colonial Village Request for Determination of Applicability Package.pdf



Massachusetts Department of Environmental Protection

Bureau of Water Resources - Wetlands

WPA Form 1- Request for Determination of Applicability Arlington

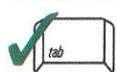
Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

Municipality

A. General Information

Important:

When filling out forms on the computer, use only the tab key to move your cursor - do not use the return key.

**1. Applicant:**

Jude R.

First Name

Colonial Village Drive

Address

Arlington

City/Town

617.423.7000 ext 3726

Phone Number

Marcotte Jr

Last Name

MA

State

02474

Zip Code

jmarcotte@firstrealtymgt.com

Email Address

2. Property Owner (if different from Applicant):

First Name

Last Name

Address

City/Town

State

Zip Code

Phone Number

Email Address (if known)

3. Representative (if any):

Ryan

First Name

Corrigan

Last Name

Parterre Garden Services

Company Name

2 Republic RD

Address

N. Billerica

City/Town

402-871-0126

Phone Number

MA

State

01862

Zip Code

Rcorrigan@parterregarden.com

Email Address (if known)

B. Project Description

1. a. Project Location (use maps and plans to identify the location of the area subject to this request):

Colonial Village Drive

Street Address

42.42621

Latitude (Decimal Degrees Format with 5 digits after decimal e.g.
XX.XXXXX)

Arlington

City/Town

-71.1869

Longitude (Decimal Degrees Format with 5 digits after
decimal e.g. -XX.XXXXX)

61

Assessors' Map Number

1

Assessors' Lot/Parcel Number

b. Area Description (use additional paper, if necessary):

See attached map. This includes invasive management along a man-made channel flowing at west
and south.

c. Plan and/or Map Reference(s): (use additional paper if necessary)

Land Management Plan for Colonial Village

Title

8/16/2024

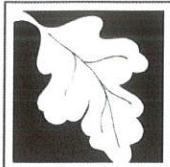
Date

Title

Date

How to find Latitude
and Longitude

and how to convert
to decimal degrees



Massachusetts Department of Environmental Protection

Bureau of Water Resources - Wetlands

WPA Form 1- Request for Determination of Applicability

Arlington
Municipality

Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

B. Project Description (cont.)

2. a. Activity/Work Description (use additional paper and/or provide plan(s) of Activity, if necessary):

Invasive species are threatening the integrity of the stormwater infrastructure. The team plans to treat and remove invasive species (Japanese Knotweed, Bittersweet, Buckthorn, Morrow's Honeysuckle). The area will then be seeded and stabilized with a native grass and wildflower mix similar to what is on the other side of the swale. As described in the land management plan, Parterre to only treat stems and put down plastic layer during treatment to prevent and potential leaching beyond target plants.

b. Identify provisions of the Wetlands Protection Act or regulations which may exempt the applicant from having to file a Notice of Intent for all or part of the described work (use additional paper, if necessary).

Site walk with conservation agent indicated that RDA would be the best strategy

3. a. If this application is a Request for Determination of Scope of Alternatives for work in the Riverfront Area, indicate the one classification below that best describes the project.

- Single family house on a lot recorded on or before 8/1/96
 - Single family house on a lot recorded after 8/1/96
 - Expansion of an existing structure on a lot recorded after 8/1/96
 - Project, other than a single-family house or public project, where the applicant owned the lot before 8/7/96
 - New agriculture or aquaculture project
 - Public project where funds were appropriated prior to 8/7/96
 - Project on a lot shown on an approved, definitive subdivision plan where there is a recorded deed restriction limiting total alteration of the Riverfront Area for the entire subdivision
 - Residential subdivision; institutional, industrial, or commercial project
 - Municipal project
 - District, county, state, or federal government project
 - Project required to evaluate off-site alternatives in more than one municipality in an Environmental Impact Report under MEPA or in an alternatives analysis pursuant to an application for a 404 permit from the U.S. Army Corps of Engineers or 401 Water Quality Certification from the Department of Environmental Protection.
- b. Provide evidence (e.g., record of date subdivision lot was recorded) supporting the classification above (use additional paper and/or attach appropriate documents, if necessary.)



Massachusetts Department of Environmental Protection

Bureau of Water Resources - Wetlands

WPA Form 1- Request for Determination of Applicability

Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

Arlington
Municipality

C. Determinations

1. I request the Arlington _____ make the following determination(s). Check any that apply:
Conservation Commission

- a. whether the **area** depicted on plan(s) and/or map(s) referenced above is an area subject to jurisdiction of the Wetlands Protection Act.
- b. whether the **boundaries** of resource area(s) depicted on plan(s) and/or map(s) referenced above are accurately delineated.
- c. whether the **Activities** depicted on plan(s) referenced above is subject to the Wetlands Protection Act and its regulations.
- d. whether the area and/or Activities depicted on plan(s) referenced above is subject to the jurisdiction of any **municipal wetlands' ordinance or bylaw** of:

Arlington

Name of Municipality

- e. whether the following **scope of alternatives** is adequate for Activities in the Riverfront Area as depicted on referenced plan(s).

D. Signatures and Submittal Requirements

I hereby certify under the penalties of perjury that the foregoing Request for Determination of Applicability and accompanying plans, documents, and supporting data are true and complete to the best of my knowledge.

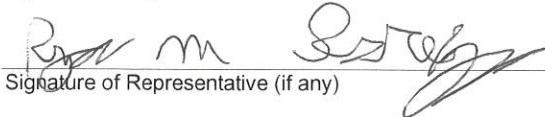
I further certify that the property owner, if different from the applicant, and the appropriate DEP Regional Office were sent a complete copy of this Request (including all appropriate documentation) simultaneously with the submittal of this Request to the Conservation Commission.

Failure by the applicant to send copies in a timely manner may result in dismissal of the Request for Determination of Applicability.

Signatures:

I also understand that notification of this Request will be placed in a local newspaper at my expense in accordance with Section 10.05(3)(b)(1) of the Wetlands Protection Act regulations.

Signature of Applicant

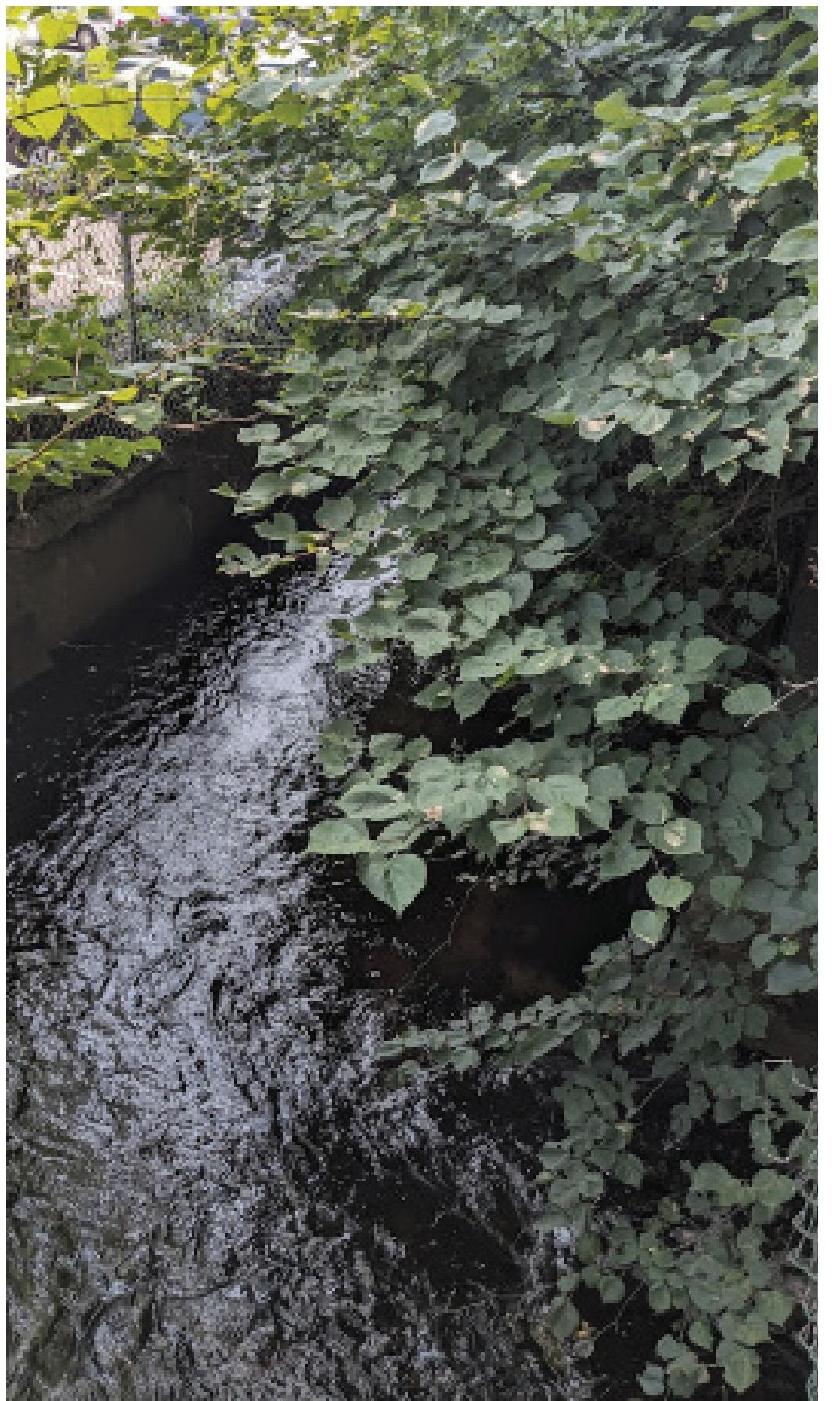


Signature of Representative (if any)

Date



Date



 PARTERRE
ECOLOGICAL

PROJECT INTRODUCTION

This land management plan outlines invasive plant management and native restoration techniques proposed for implementation at the residential complex located at 1-12 Colonial Village Drive, Arlington, MA.

Specifically, this plan deals with invasive vegetation along the channelized portion of Mill Brook between two chain link fences at the edge of the parking area as well as the opposite side of the channel adjacent to the town field.

The area is currently colonized almost completely by woody and herbaceous invasive plants, including Japanese knotweed, an aggressive invasive that requires vigorous management.

The purpose of this land management plan is to identify and illustrate the invasives plants we recommend removing, describe each species, and detail best management practices for their control and management. It also includes information on the conservation seed mix we propose sowing on disturbed soils. Our goal is to shift the ecosystem at this location from invasive species that threaten the structural integrity of the wall to a more management native perennail and grass layer below native trees that supports the soil and wall while providing habitat for native pollinators and birds.

Finally, it provides a detailed maintenance calender for all aspects of proposed management and ecological restoration over an extended timeline.

CONTENTS

<u>2</u>	Introduction
<u>3</u>	Invasives Inventory
<u>4</u>	General Invasive Management Techniques
<u>6</u>	Specialized Invasives Management Techniques
<u>8</u>	Restoration Seeding
<u>10</u>	Management Calender for Treatment and Planting
<u>12</u>	Appendix: Inventory of Invasive Plant Species





PARTERRE ECOLOGICAL

39 of 51

1-12 COLONIAL VILLAGE DRIVE
ARLINGTON, MA

INVASIVE PLANT MANAGEMENT
ALONG MILL BROOK CHANNEL

SHEET 3 OF 14

08/21/24

INVASIVE PLANT INVENTORY

The species listed below are all listed as invasive by MIPAG - (the Massachusetts Invasive Plant Advisory Group).

The woody plants include common shrubby offenders such as buckthorn, burning bush and multiflora rose. Asiatic bittersweet is a climbing vine that invades the forest canopy. Norway maple and black locust are invasive trees that displace and shade out native species. And finally, purple loosestrife is an herbaceous invader that can rapidly colonize streambanks and wetlands. Native species such as Staghorn Sumac and Cherry shall be preserved on site.

Of special concern however, is Japanese knotweed, an aggressive herbaceous invasive. Left unchecked, it will quickly colonize any space, especially waterways. During management with herbicide, a thick plastic matt will be laid under plants to catch any potential herbicide and disposed of properly

INVASIVE SPECIES

BOTANICAL NAME	COMMON NAME
Acer platanoides	Norway Maple
Celastrus orbiculatus	Asiatic Bittersweet
Euonymus alatus	Burning Bush
Fallopia japonica	Japanese Knotweed
Frangula alnus	Glossy Buckthorn
Lythrum salicaria	Purple Loosestrife
Rhamnus cathartica	Common Buckthorn
Robinia pseudoacacia	Black Locust
Rosa multiflora	Multiflora Rose

Toxicodendron radicans, or poison ivy, is a native plant, and provides many ecosystem services. However, it presents a real danger in areas of heavy human habitation, and we recommend its management as well.

PROBLEMATIC SPECIES

BOTANICAL NAME	COMMON NAME
Toxicodendron radicans	Poison Ivy



Two invasive tree species, both in juvenile form. Left: Black locust; Right: Norway maple

Top: Multiflora rose and bittersweet. Bottom: Both buckthorns, cohabitating.

Below: Japanese knotweed is an equal-opportunity invasive. It will grow in high and dry conditions as seen on the left, but it truly flourishes along waterways, as seen on right.



GENERAL INVASIVE MANAGEMENT TECHNIQUES

MANUAL HAND REMOVAL METHODS:

Manual methods of invasive plant management - including hand pulling and cutting - will be prioritized whenever possible. To minimize soil disturbance (which can activate invasive seed banks), only shallow rooted invasive plants less than 1" in caliper will be hand pulled from the soil. Invasive plant species greater than 1" caliper are best cut and treated.



Hand pulling invasive bittersweet in a meadow restoration.

MECHANICAL MANAGEMENT:

Mechanical methods of invasive control include string trimming and sawing down of single large specimens or extensive stands of a particular plant. In a few cases repeated cutting is all that is needed to weaken a plant's resources to the point of die-off. With most aggressive invasives however, cutting is only the first step in a more intensive program plan that involves selective herbicidal application.



Mechanical mowing of a dense stand of invasive plant species.



Mature woodies require use of a chainsaw.

GENERAL INVASIVE MANAGEMENT TECHNIQUES

CUT AND DAB HERBICIDE APPLICATION:

All invasive shrub and vine species that have a base greater than 1" in caliper should be addressed with herbicide application. Invasive plants of this size usually have extensive fibrous root systems which provide beneficial soil stabilization and are best left in situ. Unfortunately, they also maintain the ability to resprout, which is why Parterre Ecological utilizes a cut and dab method with a triclopyr-based herbicide (Garlon™) on individual cut stumps. Licensed Herbicide Applicators will complete this step in invasives control.



Qualified and licensed applicators paint the stems of invasive species after cutting.

FOAM APPLICATION:

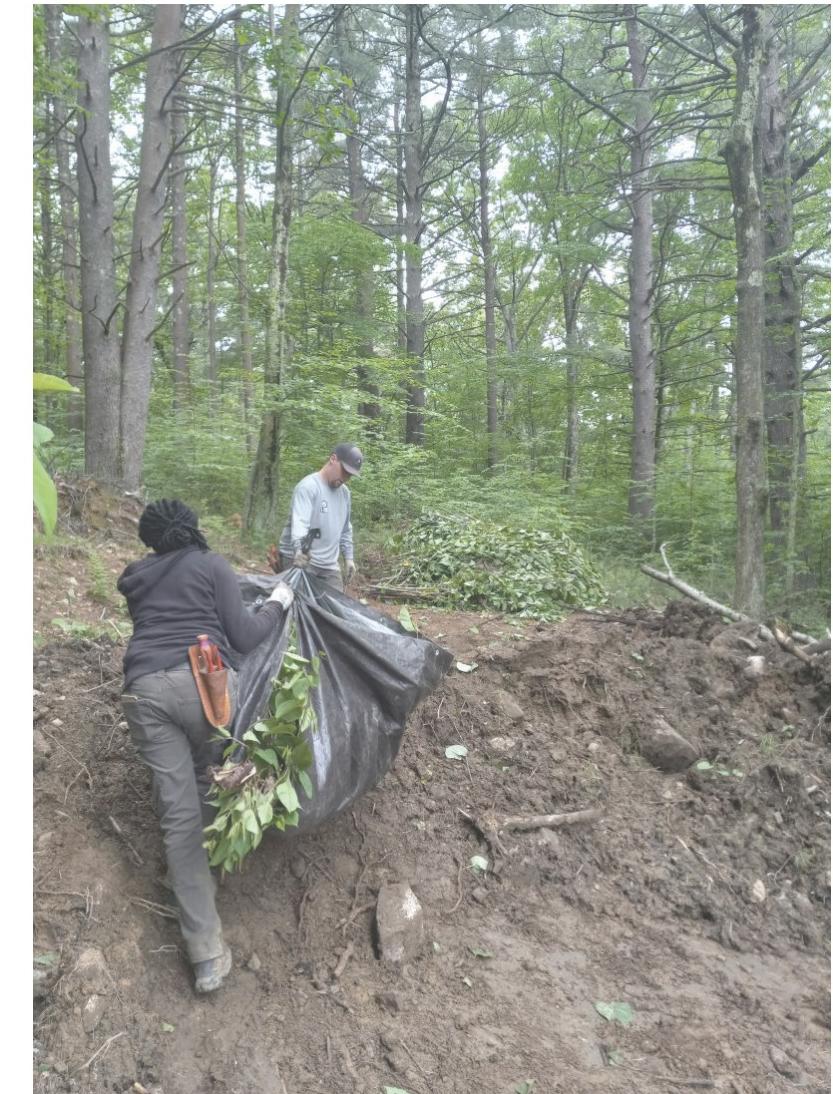
Some invasives, particularly persistent herbaceous plants and resprouting woodies, are best managed with a foliar foam application. This technique allows the Technician to systematically target the new green growth of a plant, where herbicide is absorbed most effectively. The foam adheres to the foliage and is trans-located through the vascular system of the plant. Foliar foam wipes are best performed in late summer to fall when the plant is actively reserving energy in the rootstock. During any such application, a layer of plastic matting will be put down during treatment to prevent any possibility of herbicide leaching into the stream.



Highly targeted foliar foam applications adhere to the leaf surface.

REMOVAL AND DISPOSAL:

For many species, especially those with prolific seeds and/or berries, proper off-site disposal is critical. Even species that chiefly propagate rhizomatically will be handled with care lest cuttings left on site re-root. All invasive plant species will be removed from the site and properly disposed of.



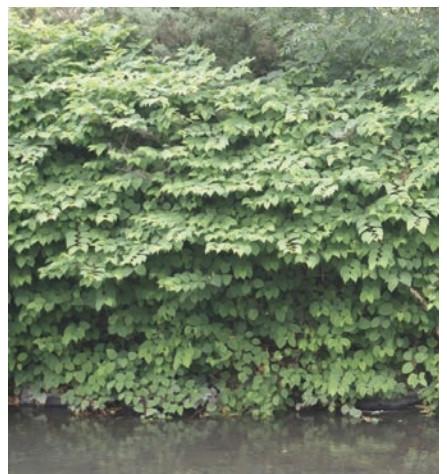
Proper removal of aggressive invasives is key to management.

SPECIALIZED INVASIVE MANAGEMENT TECHNIQUES: JAPANESE KNOTWEED

Japanese Knotweed (*Fallopia japonica*) is one of the most difficult invasive species to control. Its main mode of spreading is through cut portions of its rhizomes or stems, which can actively resprout from a 1" fragment. Growing 10-15' and often shading out any competitors, Japanese Knotweed can quickly form a monoculture, especially along waterways and wetland edges. A layer of plastic matting will be put down during treatment to prevent any possible leaching into the stream.

KNOTWEED IDENTIFICATION:

Stems are green tinged with reddish pink, ridged, jointed and hollow. The large heart-shaped leaves are alternate on the stem, with red venation. Young shoots have a distinctly pink hue. Large white plumed flowers appear in late summer.



KNOTWEED MANAGEMENT

Unfortunately, knotweed roots can extend over 6' below the ground making organic treatment nearly impossible. Even so, it can take 2-5 seasons to fully control it through repeat herbicide treatments. These are best undertaken during August and September when the plant is in its weakest stage and nutrients are flowing back into the roots. There are two ways to approach treatment.

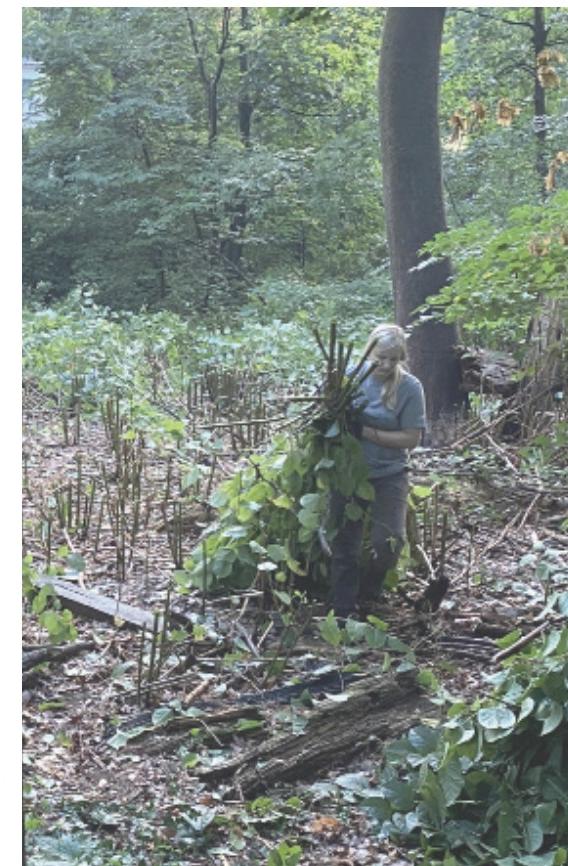
YEAR ONE:

Cut and treat. Cut the stem between the 1st and 3rd node and add a 50% solution of Aquaneat™ (glyphosate), generally 5 oz per treated stem. If density is < 5 ft per plant treat every third stem.



YEARS TWO AND THREE:

Cut in May, with a foliar or stem application of herbicide in late summer. The May cutting causes the knotweed to regrow to a more manageable height in the late summer, at which point the leaves can be easily painted with a 6.0% Aquaneat (glyphosate) solution before the plant pulls its nutrients back into the roots in preparation for winter.



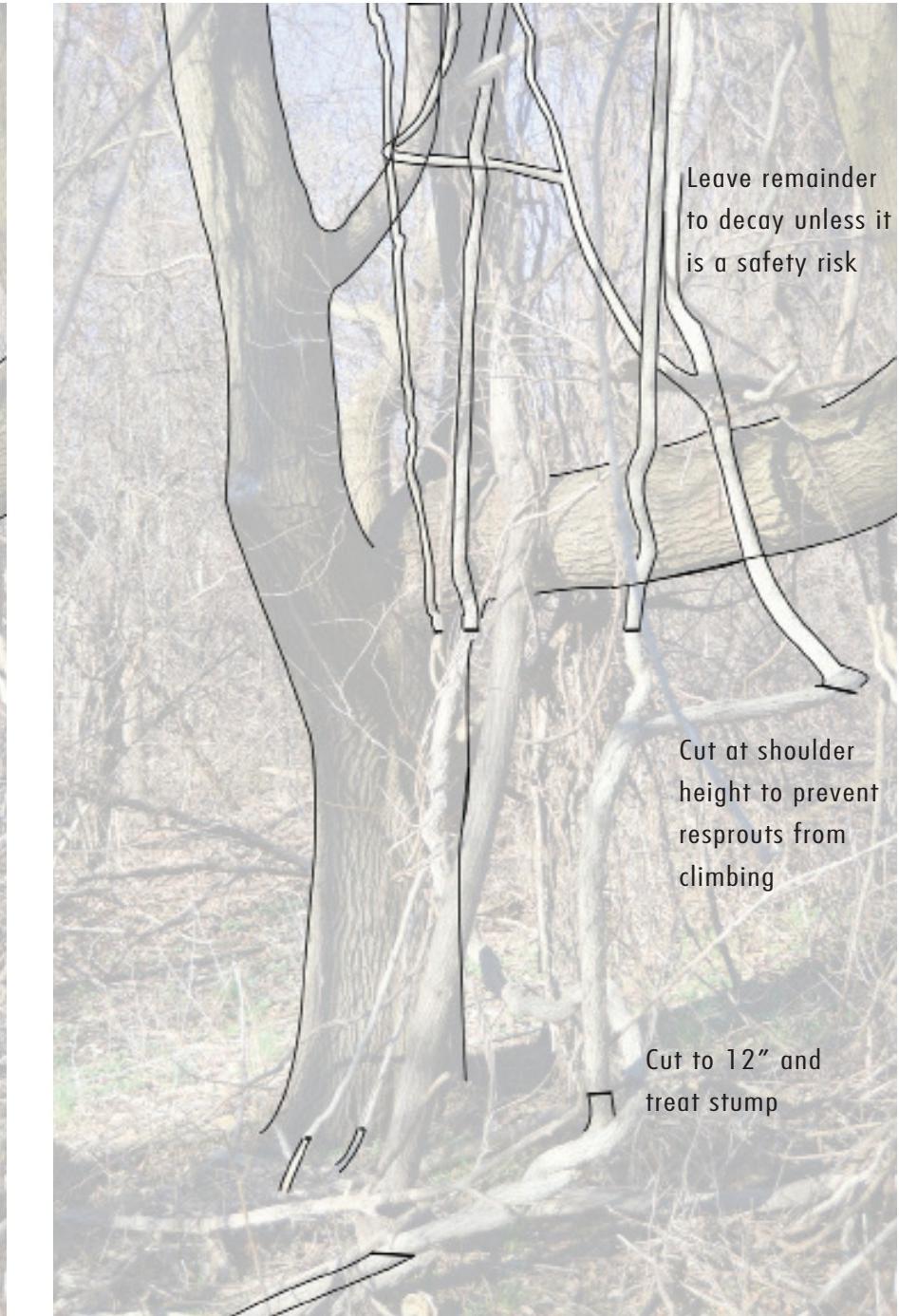
SPECIALIZED INVASIVE MANAGEMENT TECHNIQUES: ASIATIC BITTERSWEET MANAGEMENT



Invasive Bittersweet has the capacity to girdle, weaken, and even kill mature canopy trees. Without consistent management, vines will eventually open large holes in the canopy while suppressing saplings from filling the gaps. It readily resprout after being cut and can damage the aesthetic and ecological value of meadows and forests alike.



Mature stems produce thousands of bright red berries that mature in late fall and are spread by birds.



Removing the entire vines from trees is often dangerous and unnecessary (unless it poses safety risk). Best management practice involves making cuts at shoulder height followed by a cut at 12" and immediate herbicide treatment. Bittersweet aggressively suckers after cutting so it is important to cut and treat during or after its flowering period (late June to December).



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1-12 COLONIAL VILLAGE DRIVE
ARLINGTON, MA

INVASIVE PLANT MANAGEMENT
ALONG MILL BROOK CHANNEL

SHEET 8 OF 14

08/21/24

NATIVE RESTORATION TECHNIQUES: SEEDING DISTURBED SOILS

RESTORATION SEEDING

- » We propose seeding a conservation seed mix from New England Wetland Plants on the upper ledge adjacent to the town baseball field.
- » We prepare the site for sowing and planting by clearing off leaves and debris, picking up twigs and sticks, and scarifying the soil surface in preparation for sowing.
- » Hand-broadcasting seed is our preferred method of dispersal.
- » Finally, all disturbed areas will be covered with a 3/4" opening ute erosion control blanket which will hold in loose soils for 24-36 months while the seedlings germinate and establish roots.
- » If a newly seeded installation is managed intensively and responsibly during its establishment, it will require very little to no maintenance in the future.
- » The town field side (shown at right) has an successfully established conservation mix community which we hope to replicate along the top of the fence line.



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1-12 COLONIAL VILLAGE DRIVE
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INVASIVE PLANT MANAGEMENT
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NATIVE RESTORATION SEEDING PALETTE: NEWP CONSERVATION SEED MIX

The New England Conservation/Wildlife Mix provides a permanent cover of grasses, wildflowers, and legumes. It provides both good erosion control and wildlife habitat value. The mix is designed to be a no-maintenance seeding, and is appropriate for cut and fill slopes, detention basin side slopes, and disturbed areas adjacent to commercial and residential projects.



VIRGINIA WILD RYE
Elymus virginicus



LITTLE BLUESTEM
Schizachyrium scoparium



BIG BLUE STEM
Andropogon gerardi



RED FESCUE
Festuca rubra



INDIAN GRASS
Sorghastrum nutans



SWITCHGRASS
Panicum virgatum



PATRIDGE PEA
Chamaecrista fasciculata



BLACK-EYED SUSAN
Rudbeckia hirta



BUTTERFLY MILKWEED
Asclepias tuberosa



PURPLE JOE PYE WEED
Eutrochium purpureum



HEATH ASTER
Sympphyotrichum ericoides



EARLY GOLDENROD
Solidago juncea



MANAGEMENT CALENDAR FOR TREATMENT AND PLANTING

Task	Jan	Feb	Mar	Apr	May	June	July	Aug	Sep	Oct	Nov	Dec
Restoration: Seeding												
Hand removal seedlings, saplings < 1" caliper												
Hand pull herbaceous invasives												
Mechanical management of woody invasives												
Cut and dab herbicide application												
Knotweed cutting for tall stands												
Knotweed herbicide treatment												



Optimal timing and efficiency



Not optimal but mostly effective



Possible, but not ideal

The timing of various management and restoration strategies is critical to their success. This calendar details the ideal schedule for treatments, as vigilant management will be crucial to the success of invasives eradication and restoration seeding.



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1-12 COLONIAL VILLAGE DRIVE
ARLINGTON, MA

INVASIVE PLANT MANAGEMENT
ALONG MILL BROOK CHANNEL

SHEET 11 OF 14
08/21/24

PROPOSED MANAGEMENT, RESTORATION + MAINTENANCE SCHEDULE

SUMMER/ FALL 2024

- » Cut and dab woody invasives.
- » Treat herbaceous invasives with herbicidal foam.
- » Cut and treat stands of knotweed.
- » Undertake restoration seeding and bank stabalization.
- » Write and transmit field notes to Conservation Commission

SPRING 2025

- » Monitor invasives for resprouting, cut and dab with herbicide as necessary
- » Monitor seeded area, manage for invasives.
- » Write and transmit field notes to Conservation Commission

FALL 2025

- » Ongoing invasives management as needed.
- » Write and transmit field notes to Conservation Commission including an annual monitoring report

MAINTENANCE AND MONITORING:

- » After the treatments FALL 2025, the management plan should be evaluated. If treatments have been successful, only monitoring and minimal hand removal need be continued to keep invasive plant species at bay.
- » Implementation and surveillance of the LMP should be completed by qualified professionals including:
 - » Licensed pesticide applicators
 - » MA Certified Massachusetts Invasive Species Managers
 - » Massachusetts Certified Horticulturalists (MCH)
- » Monitoring reports shall be submitted to Conservation Commission at the end of each growing season (December) outlining invasive species management efforts, assessing success, and indicating the establishment of restoration plantings.



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1-12 COLONIAL VILLAGE DRIVE
ARLINGTON, MA

INVASIVE PLANT MANAGEMENT
ALONG MILL BROOK CHANNEL

SHEET 12 OF 14
08/21/24

APPENDIX: INVENTORY OF INVASIVE PLANT SPECIES



NORWAY MAPLE
Acer platanoides

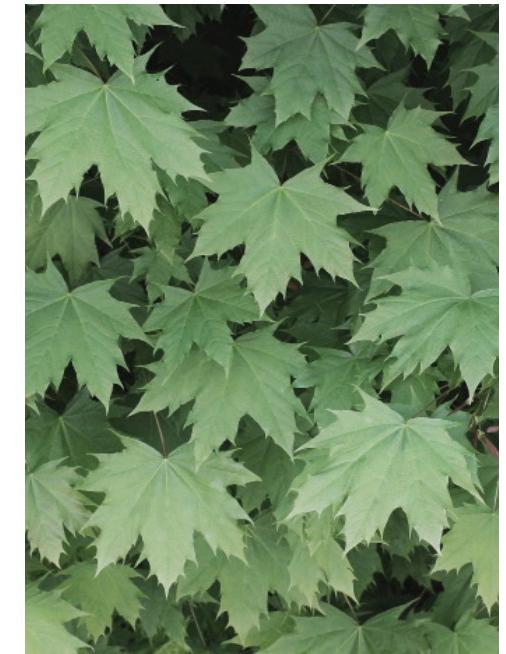
DESCRIPTION:

Acer platanoides, Norway Maple is a tree occurring in all regions of the state in upland and wetland habitats. It is especially common in urban areas. It grows in full sun to shade. It out-competes native vegetation, including sugar maple, *Acer saccharum* which it is frequently confused with. Norway autumn color is yellow, while Sugar is orange/red. Norway has white sap, while Sugar has clear sap in the petiole (stems). Norway maple leaf points reduce to a fine "hair", while the tips of the points on Sugar leaves are



HABITAT:

Norway maple is well adapted to various soils, grows in dry conditions, and can tolerate areas of soil pollution. Norway maples were widely planted in the United States as street trees and have escaped to natural habitats. Trees produce large numbers of seeds that are wind dispersed and invade natural areas, displacing native trees. Quickly establishing, they create a canopy of dense shade that prevents regeneration of native seedlings. May be allelopathic (capable of inhibiting neighboring plants' growth).



MANAGEMENT:

Manual methods of hand-pulling seedlings is recommended. For larger saplings, a 'Weed Wrench' is effective. Girdling the tree by cutting through the bark (cambium) layer all around the trunk is also an option as is basal bark treatment with a Triclopyr-based herbicide. Girdling is most effective in spring and should include reducing the canopy for safety, but consider leaving trunks for habitat value.



ASIATIC BITTERSWEET
Celastrus orbiculatus

DESCRIPTION:

Celastrus orbiculatus, Asiatic Bittersweet is a deciduous climbing vine common in areas of disturbance in our New England forests. It has glossy, rounded leaves that are alternate with finely toothed margins. The leaves turn yellow in the fall. The fruiting plants produce small greenish flower clusters from leaf axils that mature in fall to produce high numbers of fruiting seed. The seed are noticeably yellow, globular capsules that split open at maturity to reveal red-orange fruiting seeds. Roots are also distinctly orange.



HABITAT:

Bittersweet spreads easily into forest edges, woodlands, unmanaged meadows and old fields. Most disturbed sites that are not being actively managed that receive full sun are susceptible. The vine can tolerate shade but is often found in more open, sunny areas.

MANAGEMENT:

Small seedlings can be hand pulled, but bittersweet resprouts prolifically from root fragments, so more aggressive measures need be taken on all specimens but the very smallest. For established plants, vines should be cut to ground to reduce mass, but repeat cuttings will promote resprouting roots and should be avoided in most cases. Rake any seeds present, bagging in plastic bags, tying, and disposing of correctly. See Sheet x for treatment details.





DESCRIPTION:

Fallopia japonica, or Japanese knotweed is a relatively short, shrub-like plant forms large dense clumps that measure between 3-10 feet high and as wide as the space permits. It rarely reproduces by seed but instead relies on its large rhizomes which may reach a length of 15-18' feet. The stems are green tinged with reddish pink in, ridged, jointed and hollow. . The large heart-shaped leaves are alternate on the stem, with red venation. The white plumed flowers appear in late summer. It invades a wide variety of habitats and forms dense stands that crowd out other plants. It is especially pervasive on streambanks where its perennial roots do little to inhibit erosion while crowding out preferred native woody vegetation.

JAPANESE KNOTWEED
Fallopia japonica



HABITAT:

Japanese knotweed often invades disturbed sunny sites, and is often found along roadsides and especially stream banks and shorelines. However, it also tolerates deep shade, mesic soils, heat and salinity. Reproduction occurs primarily both by its extensive rhizomes but has also been known to reproduce from cuttings, which makes it a challenge to eradicate.

MANAGEMENT:

If possible hand cut large stands early in the year so that the resprouting stalks will be more manageable-sized. Then apply a glycosophate-based solution to resprouted leaves during late summer flowering. Any portions of the root system not removed or killed by herbicide will potentially re-sprout, so follow up applications will be necessary to control population.



DESCRIPTION:

Glossy Buckthorn is a deciduous shrub that grows up to 20 ft. tall. The oblong leaves are arranged alternately along the stem and are dark green on the surface, glossy above and slightly pubescent beneath. The leaves turn yellow in the fall, and remain on the plant when most other species have already lost their leaves. Flowers are yellow-The fruit ripen from red to black July to August.



HABITAT:

Buckthorn thrives in early successional habitat. Abandoned agricultural or pasture lands, an opening in canopy within woodland, or unmanaged meadows are common areas. Buckthorn tolerated hydric soils. The seed is readily dispersed by birds throughout its long fruiting season.



MANAGEMENT:

Hand cut plant approximately 6" above the ground and apply a triclopyr-based solution or perform a basal-bark painting in late fall. All fruiting plant material should be bagged and disposed of to prevent reestablishment.



DESCRIPTION:

Purple loosestrife is an herbaceous perennial plant characterized by a square stems, hairy leaves, and tall spikes covered with striking and attractive bright pink to purple flowers with wrinkled petals. flowering can begin in early summer and extend to the fall. A single plant may be comprised of many stems and reach up to 5' in diameter and 10' in height. The leaves are simple, arranged oppositely or in whorls of three around the stem. One plant can produce millions of seeds annually, which are easily wind or water-born, and are the chief means by which the plant propagates.



HABITAT:

Open, sunny wet or moist soils are the preferred habitat of loosestrife, and it is an aggressive colonizer of freshwater marshes stream banks, wetlands, lake shores and even irrigation ditches are frequently invaded by this plant. The stem tissue of loosestrife has evolved to develop air between its cells, allowing the plant to respire even when submerged in water. It is capable of spreading rapidly to form a dense homogeneous stand that excludes native species and provides little ecosystem value.

MANAGEMENT:

Small infestations of juvenile loosestrife can be hand-pulled, when found in sandy soils, and before seed set. Larger populations of loosestrife are best managed using chemical or biological means. The selective application of glyphosate or triclopyr can allow native plants to colonize the open spaces left once the loosestrife succumbs to the herbicide.



PURPLE LOOSESTRIFE
Lythrum salicaria





DESCRIPTION:

Common buckthorn is a small deciduous tree or large shrub that can grow up to 30' tall. It has dull green oval, and finely serrated leaves and is easily identified by the small thorns at the tip of each branch. Branches are tipped with a short thorn; a thorn may also be found in the fork between two branches. Small yellowish-green flowers occur in the axils or along the stem, which give way to small bluish or black berries a dark purplish or black color.



HABITAT:

Common Buckthorn forms dense thickets in lightly shaded areas and is tolerant of many soil conditions from well-drained sand to clay. It is frequently found on roadsides, forest edges and on streambanks.



MANAGEMENT:

Hand cut plant approximately 6" above the ground and apply a triclopyr-based herbicide. Any portions of the root system not removed or killed by herbicide will potentially re-sprout, so follow up applications will be necessary to control population. All fruited or seed-bearing plant material will be bagged and disposed of to prevent reestablishment.

COMMON BUCKTHORN *Rhamnus cathartica*



DESCRIPTION:

Multiflora Rose is a shrub with arching canes with a mounding shape in the landscape. The leaves are divided into five to eleven sharply toothed leaflets. The base of each leaf stalk has a pair of fringed bracts which is a key identifier of the plant from other wild rose. Beginning in early summer, clusters of showy white flowers appear. The flowers are followed by developing red fruit, or hips, during the summer that remain on the plant through the winter.



HABITAT:

Multiflora Rose thrives in early successional habitat. The rose tolerates various soil, moisture, and light conditions. It occurs in dense woods, along river banks and roadsides and in open unmanaged fields. It can form a dense understory that suppresses growth of native plant species. The seed is readily dispersed by birds, and the extended productivity of the fruit into winter months allows wide spread distribution of the plant.



MANAGEMENT:

Manual methods of hand-pulling seedlings is effective. For more established shrubs, a combination of pruning to reduce mass followed by cut & dab treatments with a triclopyr-based herbicide is recommended. Persistent root infestations may require repeat cutting over several seasons. Rake any seeds present, bagging and disposing of correctly.

MULTIFLORA ROSE *Rosa multiflora*



DESCRIPTION:

Black Locust is a large deciduous tree that can grow up to 80 - 100' ft in height with an upright habit in the forest and a spreading form in open areas. The bark of black locust is light brown and rough when young, turning a distinctive deeply-furrowed gray with age. Leaves are pinnately compound with small, round dark blue-green leaflets. Showy fragrant white to yellow flowers appear in spring, which give way to a long smooth seed pod.



HABITAT:

Black locust is typical to woodland edges and disturbed areas with dry soil. It is capable of spreading by underground roots and suckers. Although locally native to parts of the US, it is considered an undesirable species in New England, particularly in uncommon habitats as its nitrogen-fixing ability allows it to out-compete native plants. It is a typical pioneer species that prefers full sun and often colonizes areas of disturbance.



MANAGEMENT:

Small (less than 1" caliper) saplings can be pulled out by hand but larger trees need to be addressed more aggressively. Best management practices include the application of systemic herbicides to the freshly cut stumps, but there may be a need to monitor and retreat in subsequent seasons.

BLACK LOCUST *Robinia pseudoacacia*



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